



PTO/SB/08a/b (08-03)

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Substitute for form 1449-08/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	21	Attorney Docket Number	PM 2000.010A/4
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Complete If Known

Application Number	10/779,885
Filing Date	February 17, 2004
First Named Inventor	Hans Thomann
Art Unit	2863
Examiner Name	Victor J. Taylor

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
E/J	1	3,812,457	05-21-1974	Weller	
WU	2	4,003,017	01-11-1977	Bailey	N/A
WU	3	4,144,949	03-20-1979	Silverman	
WU	4	4,207,619	06-10-1980	Klaveness	
WU	5	4,460,059	07-17-1984	Katz	
WU	6	4,718,048	01-05-1988	Staron et al.	N/A
WU	7	4,829,489	05-09-1989	Rector	
WU	8	4,849,945	07-18-1989	Widrow	A/C
WU	9	4,862,423	08-29-1989	Rector	
WU	10	4,873,675	10-10-1989	Barr, Jr. et al.	N/A
WU	11	4,954,998	09-04-1990	Rector	
WU	12	4,965,774	10-23-1990	Ng et al.	
WU	13	5,012,453	04-30-1991	Katz	
WU	14	5,109,946	05-05-1992	Sorrells	
WU	15	5,109,947	05-05-1992	Rector, III	
WU	16	5,144,589	09-01-1992	Hardage	
WU	17	5,144,591	09-01-1992	Hardage	N/A
WU	18	5,191,557	03-02-1993	Rector et al.	

Examiner Signature	WJ Taylor	Date Considered	6/1/2007
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Sheet	2	of	21	Attorney Docket Number	PM 2000.010A/4

U.S. PATENT DOCUMENTS					
U	14	5,200,929	04-06-1993	Bowers	
U	20	5,233,567	08-03-1993	Calvert	
U	21	5,242,025	09-07-1993	Neill et al.	
U	22	5,305,285	04-19-1994	Naville et al.	
U	23	5,372,207	12-13-1994	Naville et al.	
U	24	5,438,170	08-01-1995	Klaveness	
U	25	5,511,038	04-23-1996	Angeleri et al.	
U	26	5,585,556	12-17-1996	Petersen et al.	
U	27	5,758,539	06-02-1998	Naville et al.	
U	28	5,798,488	08-25-1998	Beresford et al.	
U	29	5,835,883	11-10-1998	Neff et al.	
U	30	5,844,132	12-01-1998	Fabret et al.	
U	31	5,936,913	08-10-1999	Gill et al.	
U	32	6,023,444	02-08-2000	Naville	
U	33	6,028,534	02-22-2000	Ciglenec et al.	
U	34	6,176,323	01-23-2001	Weirich et al.	
U	35	6,206,108	03-27-2001	MacDonald et al.	
U	36	6,262,941	07-17-2001	Naville	
U	37	6,473,696	10-29-2002	Onyia et al.	
U	38	6,614,360	09-02-2003	Leggett, III et al.	
U	39	6,694,261	02-17-2004	Huffman	
Examiner Signature	<i>U.S. Patent</i>			Date Considered	6/12/00

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U.S. PATENT DOCUMENTS			
UR 40	6,751,558	06-15-2004	Huffman et al.
UR 41	6,977,866	12-20-2005	Huffman et al.

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ² -Number ³ -Kind Code ⁴ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear T ⁵
UR 42	GB 2 312 008 A	10-15-1997	Schlumberger Limited		
UR 43	WO 00/13046	03-09-2000	Den Norsek Stats Oljeselskap A.S. et al.	X X	C
UR 44	WO 02/31538 A1	04-18-2002	ExxonMobil Upstream Research Company	A C	C
		LAST ITEM			

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
UR 45		Dickinson, George, "Geological Aspects of Abnormal Reservoir Pressures in Gulf Coast Louisiana," Bulletin of the American Association of Petroleum Geologists, Vol. 37, No. 2, pp. 410-432, February 1953.			
UR 46		Sarmiento, Roberto, "Geological Factors Influencing Porosity Estimates From Velocity Logs," Bulletin of the American Association of Petroleum Geologists, Vol. 45, No. 5, pp. 633-644, May 1961.			
UR 47		Pennebaker, Jr., E.S., "Seismic Data Indicate Depth, Magnitude of Abnormal Pressures," World Oil, pp. 73-77, June 1968.			
Examiner Signature		<i>UR 45...</i>		Date Considered	6/1/2007

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Sheet	4	of	21	Attorney Docket Number	PM 2000.010A/4

NON PATENT LITERATURE DOCUMENTS			
u 48	Todd, T. and Simmons, G., "Effect of Pore Pressure on the Velocity of Compressional Waves in Low-Porosity Rocks," Journal of Geophysical Research, Vol. 77, No. 20, pp. 3731-3743, July 10, 1972.		✓
u 49	Mavko, G.M. and Nur, A., "Wave Attenuation in Partially Saturated Rocks," presented at the 46th Annual International SEG Meeting in Houston, Texas, October 27, 1976; published in Geophysics, Vol. 44, No. 2, pp. 161-178, February 1979.		✓
u 50	O'Connell, R. J., and Budiansky, B., "Viscoelastic Properties of Fluid-Saturated Cracked Solids," Journal of Geophysical Research, Vol. 82, No. 36, pp. 5719-5735, December 10, 1977.		✓
u 51	Zsellér, P., "Determination of Layer Pressures Using Interval Velocities," Geofizikai Közlemények, Vol. 25, pp. 39-51, 1979.		✓
u 52	Hamilton, E.L., "V _p /V _s and Poisson's Ratios in Marine Sediments and Rocks," J. Acoust. Soc. Am., Vol. 66, No. 4, pp. 1093-1101, October 1979.		✓
u 53	Spencer, Jr., J.W., "Bulk and Shear Attenuation in Berea Sandstone: The Effects of Pore Fluids," Journal of Geophysical Research, Vol. 84, No. B13, pp. 7521-7523, December 10, 1979.		✓
u 54	Bell, David W. and Shirley, Donald J., "Temperature Variation of the Acoustical Properties of Laboratory Sediments," J. Acoust. Soc. Am., Vol. 68, No. 1, pp. 227-231, July 1980.		✓
u 55	Palmer, I.D. and Traviolia, M.L., "Attenuation by Squirt Flow in Undersaturated Gas Sands," Geophysics, Vol. 45, No. 12, pp. 1780-1792, December 1980.		✓
u 56	Tittmann, B.R. et al., "Frequency Dependence of Seismic Dissipation in Saturated Rocks," Geophysical Research Letters, Vol. 8, No. 1, pp. 36-38, January 1981.		✓
u 57	Spencer, J.W., Jr., "Stress Relaxations at Low Frequencies in Fluid-Saturated Rocks: Attenuation and Modulus Dispersion," Journal of Geophysical Research, Vol. 86, No. B3, pp. 1803-1812, March 10, 1981.		✓

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NON PATENT LITERATURE DOCUMENTS			
W 58	Ashida, Y. and Kawamura, T., "The Application of Synthetic Acoustic Impedance Log to the Computation of Formation Pore Pressure Gradient and Fracture Gradient," Geophysical Exploration, Vol. 35, No. 1, pp. 13-21, 1982. (An English language translation is attached.)	✓	
W 59	Winkler, K.W. and Nur, A., "Seismic Attenuation: Effects of Pore Fluids and Frictional Sliding," Geophysics, Vol. 47, No. 1, pp. 1-15, January 1982.	✓	
W 60	Murphy, III, W.F., "Effects of Partial Water Saturation on Attenuation in Massilon Sandstone and Vycor Porous Glass," J. Acoust. Soc. Am., Vol. 71, No. 6, pp. 1458-1468, June 1982.	✓	
W 61	Chave, Alan D. and Cox, Charles S., "Controlled Electromagnetic Sources For Measuring Electrical Conductivity Beneath the Oceans 1. Forward Problem and Model Study," Journal of Geophysical Research, Vol. 87, No. B7, pp. 5327-5338, July 10, 1982.	✓	
W 62	Jones, T. and Nur, A., "Velocity and Attenuation in Sandstone at Elevated Temperatures and Pressures," Geophysical Research Letters, Vol. 10, No. 2, pp. 140-143, February 1983.	✓	
W 63	Dutta, N.C., "Shale Compaction and Abnormal Pore-Pressures: A Model of Geopressures in the Gulf Coast Basin," Society of Exploration Geophysicists, Expanded Abstracts With Biographies, 1983 Technical Program, 53 rd Annual International SEG Meeting, Las Vegas, Nevada, pp. 542-544, September 11-15, 1983.	✓	
W 64	Winkler, K.W., "Frequency Dependent Ultrasonic Properties of High-Porosity Sandstones," Journal of Geophysical Research, Vol. 88, No. B11, pp. 9493-9499, November 10, 1983.	✓	

Examiner Signature	W 777	Date Considered	6/1/2007
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NON PATENT LITERATURE DOCUMENTS					
W 65	Tittmann, B.R. et al., "Dissipation of Elastic Waves in Fluid Saturated Rocks," Physics and Chemistry of Porous Media, American Institute of Physics, pp. 131-143, 1984.				V
U 66	Corbin, Robert J. et al., "Shear and Compressional-Wave Surface and Downhole Tests in Southern Louisiana," Abstract in AAPG Bulletin, Volume 68, No. 4, pp. 465-466, April 1984.				L
W 67	Manik, P. et al., "Prediction of Abnormal Pressure Based on Seismic Data. A Case Study of Exploratory Well Drilling in Pertamina UEP I and UEP II Work Areas," Indonesian Petroleum Association, Proceedings of the Thirteenth Annual Convention, Jakarta, Indonesia, pp. 461-505, May 29-30, 1984.				L
W 68	Williams, D.M. et al, "The Long Spaced Acoustic Logging tool," SPWLA 25th Annual Logging Symposium, June 10-13, 1984.				L
W 69	Christensen, N.I. and Wang, H.F., "The Influence of Pore Pressure and Confining Pressure on Dynamic Elastic Properties of Berea Sandstone," Geophysics, Vol. 50, No. 2, pp. 207-213, February 1985.				L
W 70	O'Hara, Stephen G., "Influence of Pressure, Temperature, and Pore Fluid on the Frequency-Dependent Attenuation of Elastic Waves in Berea Sandstone," Physical Review A, Vol. 32, No. 1, pp.472-488, July 1985.				L
W 71	Winkler, K.W., "Dispersion Analysis of Velocity and Attenuation in Berea Sandstone," Journal of Geophysical Research, Vol. 90, No. B8, pp. 6793-6800, July 10, 1985.				L
W 72	Menke, W. and Dubendorff, B., "Discriminating Intrinsic and Apparent Attenuation in Layered Rock," Geophysical Research Letters, Vol. 12, No. 10, pp. 721-724, October 1985.				L

Examiner Signature	W 72	Date Considered	8/1/2007
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NON PATENT LITERATURE DOCUMENTS			
u 73	Dutta, N.C., "Shale Compaction, Burial Diagenesis, and Geopressures: A Dynamic Model, Solution and Some Results," in Jean Burrus, ed., <i>Thermal Modeling In Sedimentary Basins</i> , 1st IFP Exploration Research Conference, Carcans, France, June 3-7, 1985, Paris: Editions Technip, pp. 149-172, 1986.		c
109 74	White, J.E., "Biot-Gardener Theory of Extensional Waves in Porous Rods," <i>Geophysics</i> , Vol. 51, No. 3, pp. 742-745, March 1986.		c
u 75	Green, D.H., and Wang, H.F., "Fluid Pressure Response to Undrained Compression in Saturated Sedimentary Rock," <i>Geophysics</i> , Vol. 51, No. 4, pp. 948-956, April 1986.		c
u 76	Dunn, K.J., "Acoustic Attenuation in Fluid-Saturated Porous Cylinders at Low Frequencies," <i>J. Acoust. Soc. Am.</i> , Vol. 79, No. 6, pp. 1709-1721, June 1986.		c
u 77	Jones, T.D., "Pore Fluids and Frequency-Dependent Wave Propagation in Rocks," <i>Geophysics</i> , Vol. 51, No. 10, pp. 1939-1953, October 1986.		c
u 78	Han, De-hua, et al., "Effects of Porosity and Clay Content on Wave Velocities in Sandstones," <i>Geophysics</i> , Vol. 51, No. 11, pp. 2093-2107, November 1986.		c
u 79	Bell, David W., "Low Seismic Frequencies: Acquisition and Utilization of Broad-Band Signals Containing 2-8 Hz Reflection Energy," 1986 Annual Meeting Abstracts S8.1 in <i>Geophysics</i> , Vol. 52, No. 3, pp. 421-422, March 1987.		c
u 80	Onyia, E.C., "Geology Drilling Log - A Computer Database System for Drilling Simulation," <i>SPE Drilling Engineering</i> , Vol. 2, No. 1, pp. 27-36, March 1987.		c
u 81	Dunn, K.J., "Sample Boundary Effect in Acoustic Attenuation of Fluid-Saturated Porous Cylinders," <i>J. Acoust. Soc. Am.</i> , Vol. 81, No. 5, pp. 1259-1266, May 1987.		c
u 82	Rector, J.W. et al., "Use of Drill-Bit Energy as a Downhole Seismic Source," 58th Ann. Int. Mtg. of SEG, Expanded Abstracts, pp. 161-164, 1988.		c

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				First Named Inventor	Hans Thomann
				Art Unit	2863
				Examiner Name	Victor J. Taylor
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NON PATENT LITERATURE DOCUMENTS					
u 43	Dutta, N.C., "Fluid Flow in Low Permeable, Porous Media," Revue de L'Institut Français du Pétrole, Vol. 43, No. 2, pp. 165-180, March-April 1988.				L
u 84	Onyia, E.C., "Relationships Between Formation Strength, Drilling Strength, and Electric Log Properties," SPE 18166, 63rd Annual Technical Conference and Exhibition of the SPE, Houston, TX, pp. 605-618, October 2-5, 1988.				L
u 85	Goldberg, D. and Zinszner, B., "P-Wave Attenuation Measurements from Laboratory Resonance and Sonic Waveform Data," Geophysics, Vol. 54, No. 1, pp. 76-81, January 1989.				L
u 86	Ramaswamy, M. and Ioup, G.E., "Autocorrelation Estimation Using Constrained Iterative Spectral Deconvolution," Geophysics, Vol. 54, No. 3, pp. 381-391, March 1989.				L
u 87	Rector, III, J.W. et al., "The Use of an Active Drill Bit for Inverse VSP Measurements," presented at the 7th ASEG Conference and Exhibition in Melbourne, September 24-29, 1989, published in Exploration Geophysics, Vol. 20, pp. 343-346, March-June 1989.				L
u 88	Mörig, R. and Burkhardt, H., "Experimental Evidence for the Biot-Gardner Theory," Geophysics, Vol. 54, No. 4, pp. 524-527, April 1989.				L
u 89	O'Hara, S.G., "Elastic-Wave Attenuation in Fluid-Saturated Berea Sandstone," Geophysics, Vol. 54, No. 6, pp. 785-788, June 1989.				L
u 90	Vo-Thanh, D., "Effects of Fluid Viscosity on Shear-Wave Attenuation in Saturated Sandstones," Geophysics, Vol. 55, No. 6, pp. 712-722, June 1990.				L
u 91	Lucet, N. et al., "Sonic Properties of Rocks Under Confining Pressure Using the Resonant Bar Technique," J. Acoust. Soc. Am., Vol. 89, No. 3, pp. 980-990, March 1991.				L
u 92	Martinez, R.D. et al., "Formation Pressure Prediction With Seismic Data From the Gulf of Mexico," SPE Formation Evaluation, Vol. 6, No. 1, pp. 27-32, March 1991.				L
Examiner Signature	<i>by [Signature]</i>	Date Considered	6/1/2007		

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NON PATENT LITERATURE DOCUMENTS			
u 1	93	Rector, III, J.W. and Marion, B.P., "The Use of Drill-Bit Energy as a Downhole Seismic Source," Geophysics, Vol. 56, No. 5, pp. 628-634, May 1991.	✓
u 2	94	Keyser, W. et al., "Pore Pressure Prediction From Surface Seismic," World Oil, Vol. 212, No. 9, pp. 115-124, September 1991.	✓
u 3	95	Dupal, K. and Flodberg, K.D., "Auger TLP: Drilling Engineering Overview," SPE 22543, 66 th Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, Dallas, TX, pp. 85-100, October 6-9, 1991.	✓
u 4	96	Onyia, E.C., "An Analysis of Experimental Data on Lost Circulation Problems While Drilling With Oil-Base Mud," SPE 22581, 66th Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, Dallas, TX, pp. 425-436, October 6-9, 1991.	✓
u 5	97	Rector, III, J.W., "Drill String Wave Modes Produced by a Working Drill Bit," 62nd Ann. Int. Mtg. SEG, Expanded Abstracts, pp. 155-157, 1992.	✓
u 6	98	Rector, J.W., "Drill Bit Wavefields," 54th Meeting and Technical Exhibition, Paris France, pp. 220-221, June 1-5, 1992.	✓
u 7	99	Proehl, T.S. et al., "Assessing the Productivity Enhancement and Economic Impact of Geopressure Evaluation Computer Software," SPE 24447, Seventh Petroleum Computer Conference of the Society of Petroleum Engineers, Houston, TX, pp. 231-239, July 19-22, 1992.	✓
u 8	100	Lucet, N. and Zinszner, B., "Effects of Heterogeneities and Anisotropy on Sonic and Ultrasonic Attenuation in Rocks," Geophysics, Vol. 57, No. 8, pp. 1018-2026, August 1992.	✓
u 9	101	Rector, III, J.W. and Hardage, B.A., "Radiation Pattern and Seismic Waves Generated by a Working Roller-Cone Drill Bit," Geophysics, Vol. 57, No. 10, pp. 1319-1333, October 1992.	✓

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				Examiner Name	Victor J. Taylor
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NON PATENT LITERATURE DOCUMENTS		
u 102	Advocate, D. M. and Hood, K.C., "An Empirical Time-Depth Model for Calculating Water Depth, Northwest Gulf of Mexico," Geo-Marine Letters, Vol. 13, pp. 207-211, 1993.	✓
u 103	Meehan, R. et al., "Rekindling Interest in Seismic While Drilling," Oilfield Review, pp. 4-13, January 1993.	✓
u 104	Grauls, D. and Cassignol, C., "Identification of a Zone of Fluid Pressure-Induced Fractures From Log and Seismic Data - a Case History," First Break, Vol. 11, No. 2, pp. 59-68, February 1993.	✓
u 105	Dvorkin, J. and Nur, A., "Dynamic Poroelasticity: A Unified Model With the Squirt and the Biot Mechanisms," Geophysics, Vol. 58, No. 4, pp. 524-533, April 1993.	✓
u 106	Best, A.I. et al., "The Relationships Between the Velocities, Attenuations and Petrophysical Properties of Reservoir Sedimentary Rocks," Geophysical Prospecting, Vol. 42, pp. 151-178, 1994.	✓
u 107	Bowers, G.L., "Pore Pressure Estimation From Velocity Data: Accounting for Overpressure Mechanisms Besides Undercompaction," SPE 27488, IADC/SPE Drilling Conference, Dallas, Texas, pp. 515-530, 1994.	✓
u 108	Kan, T.K. and Sicking, C.J., "Pre-Drill Geophysical Methods for Geopressure Detection and Evaluation," Chapter 6, Studies in Abnormal Pressures. Developments in Petroleum Science, 38, edited by W. H. Fertl et al., Elsevier Science, pp. 155-186, 1994.	✓
u 109	Mavko, G. and Jizba, D., "The Relation Between Seismic P- and S-Wave Velocity Dispersion in Saturated Rocks," Geophysics, Vol. 59, No. 1, pp. 87-92, January 1994.	✓
u 110	Dvorkin, J. et al., "The Squirt-Flow Mechanism: Macroscopic Description," Geophysics, Vol. 59, No. 3, pp. 428-438, March 1994.	✓

Examiner Signature	<i>u 102</i>	Date Considered	3/1/2007
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NON PATENT LITERATURE DOCUMENTS					
a	111	Onyia, E.C., "Experimental Data Analysis of Lost-Circulation Problems During Drilling With Oil-Based Mud," SPE Drilling & Completion, Vol. 9, No. 1, pp. 25-31, March 1994.			c
M	112	Aleotti, L. et al., "Impact of Drill-Bit Seismic Method on Explorative Wells," EAGE-56th Meeting and Technical Exhibition, Vienna, Austria, June 6-10, 1994.			c
u	113	Payne, Michael A., "Looking Ahead With Vertical Seismic Profiles," Geophysics, Vol. 59, No. 8, pp. 1182-1191, August 1994.			c
u	114	Kader, Mohd Shariff Bin, "Abnormal Pressure Occurrence in the Malay and Penyu Basins, Offshore Peninsular Malaysia - A Regional Understanding," Geol. Soc. Malaysia, Bulletin 36, pp. 81-91, December 1994.			c
u	115	Dvorkin, J. et al., "Squirt Flow in Fully Saturated Rocks," Geophysics, Vol. 60, No. 1, pp. 97-107, January-February 1995.			c
u	116	Aleotti, L. et al., "Seismic While-Drilling Technology: Use and Analysis of the Drill-Bit Seismic Source in a Cross-Hole Survey," presented at the 57th EAGE Conference in Glasgow, UK, May-June, 1995, published in Geophysical Prospecting, Vol. 47, pp. 25-39, 1999.			c
u	117	Aleotti, L. et al., "Seisbit - Latest Applications of Seismic While Drilling Technology," 57th EAGE Conference and Technical Exhibition, May 29-June 2, 1995.			c
u	118	Bowers, Glenn L., "Pore Pressure Estimation From Velocity Data: Accounting for Overpressure Mechanisms Besides Undercompaction," SPE Drilling Completion, pp. 89-95, June 1995.			c
u	119	Minear, John et al., "Compressional Slowness Measurements While Drilling," SPWLA 36 th Annual Logging Symposium, pp. 1-12, June 26-29, 1995.			c
u	120	Audet, D. Marc, "Compaction and Overpressuring in Pleistocene Sediments on the Louisiana Shelf, Gulf of Mexico," Marine and Petroleum Geology, Vol. 13, No. 5, pp. 467-474, 1996.			c
Examiner Signature	<i>Under 25m</i>			Date Considered	6/1/2007

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u	121	Dutta, N.C. and Ray, A., "Subsurface Image of Geopressured Rocks Using Seismic Velocity and Acoustic Impedance Inversion," EAGE 58 th Conference and Technical Exhibition – Amsterdam, The Netherlands, June 3-7, 1996.			✓
u	122	Borland, W.H. et al., "Drill Bit Seismic, Vertical Seismic Profiling, and Seismic Depth Imaging to Aid Drilling Decisions in the Tho Tinh Structure-Nam Con Son Basin-Vietnam," presented at the 95th Society of Exploration Geophysicists of Japan, Kyoto, October 23, 1996, published in Geophysical Exploration, Vol. 51, No. 1, pp. 27-44, February 1998.			✓
u	123	Best, A.I., "The Effect of Pressure on Ultrasonic Velocity and Attenuation in Near-Surface Sedimentary Rocks," Geophysical Prospecting, Vol. 45, pp. 345-364, 1997.			✓
u	124	Dutta, N.C., "Pressure Prediction From Seismic Data: Implications For Seal Distribution and Hydrocarbon Exploration and Exploitation in the Deepwater Gulf of Mexico," In A.G. Koestler and P. Moller-Pederson, eds., <i>Hydrocarbon Seals: Importance for Exploration and Production</i> (Norwegian Petroleum Society Special Publication No. 7), Amsterdam: Elsevier, pp. 187-199, 1997.			✓
u	125	Parra, J.O., "The Transversely Isotropic Poroelastic Wave Equation Including the Biot and the Squirt Mechanisms: Theory and Application," Geophysics, Vol. 62, No. 1, pp. 309-318, January-February 1997.			✓
u	126	Jackson, M. and Einchcomb, C., "Seismic While Drilling: Operational Experiences in Viet Nam," World Oil, pp. 50, 53, March 1997.			✓
u	127	Leising, L.J. et al., "Extending the Reach of Coiled Tubing Drilling (Thrusters, Equalizers and Tractors)," SPE/IADC 37656, SPE/IADC Drilling Conference, Amsterdam, The Netherlands, pp. 677-690, March 4-6, 1997.			✓
u	128	Gurney, Judith, "Migration or Replenishment in the Gulf," Petroleum Review, pp. 200-203, May 1997.			✓

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W	129	Bertelli, L. et al., "While Drilling Methodologies-The Integration Strategy and The Impact of E&P Activities," EAGE 59th Conference and Technical Exhibition, Geneva, Switzerland, May 26-30, 1997.			C
W	130	Poletto, F. et al., "Seismic While Drilling Using PDC Signals - Seisbit Experience and Perspectives," EAGE 59th Conference and Technical Exhibition, Geneva, Switzerland, May 26-30, 1997.			C
W	131	"Extending Coiled-Tubing-Drilling Reach," JPT, Vol. 49, No. 6, pp. 597-598, June 1997.			C
W	132	Kamata, M., et al., "Drill-Bit Seismic a Service for Drilling Optimization," SPWLA, 38th Annual Logging Symposium, pp. 1-9, June 15-18, 1997.			C
W	133	Borland, W. et al., "Real-Time Answers to Well Drilling and Design Questions," Oilfield Review, Vol. 9, No. 2, pp. 2-15, Summer 1997.			C
W	134	Dunsmuir, John H. et al., "Synchrotron Microtomography: System Design and Application to Fluids in Small Channels," Reprinted from Developments in X-Ray Tomography, SPIE, Vol. 3149, San Diego, California, pp. 82-89, July 28-29, 1997.			C
W	135	Prasad, M. and Manghnani, M.H., "Effects of Pore and Differential Pressure on Compressional Wave Velocity and Quality Factor in Berea and Michigan Sandstones," Geophysics, Vol. 62, No. 4, pp. 1163-1176, July-August 1997.			C
W	136	Stewart, Lisa and Dodds, Kevin, "Drill Bit Seismic," Journal of Offshore Technology, Vol. 5, No. 3, pp. 36-39, August 1997.			C
W	137	Traugott, Martin, "Pore/Fracture Pressure Determinations in Deep Water," Deepwater Technology, pp. 68-70, August 1997.			C
W	138	Hsu, Kai et al., "Sonic-While-Drilling Tool Detects Overpressured Formations," Oil & Gas Journal, pp. 59-67, August 4, 1997.			C

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WJ	139	Kozawa, T. et al., "Active SWD Using Monochromatic Wavelet," The Third Well Logging Symposium of Japan, pp. 1-6, September 24-25, 1997.
WJ	140	Sams, M.S. et al., "The Measurement of Velocity Dispersion and Frequency-Dependent Intrinsic Attenuation in Sedimentary Rocks," Geophysics, Vol. 62, No. 5, pp. 1456-1464, September-October 1997.
WJ	141	Eaton, Dr. Ben A. and Eaton, Travis L., "Fracture Gradient Prediction for the New Generation," World Oil, pp. 93-100, October 1997.
WJ	142	Kamata, M. et al., "Real-Time Seismic-While-Drilling Offers Savings, Improves Safety," Petrol. Eng., Vol. 70, No. 10, pp. 37-39, October 1997.
WJ	143	Nutt, L, "Drill Bit Seismic Improves Drilling Data," The American Oil & Gas Reporter, pp. 57-62, November 1997.
WJ	144	Borland, W., Drew, J. and Angove, R., "Drilling Hazard Risk Reduction in Brunei Using Surface and Drill Bit Seismic Data," IADC Well Control Conference for the Asia Pacific Region, Singapore, December 4-5, 1997.
WJ	145	"Geopressure Estimation Software," published by Petrospec Computer Corporation, Richardson, TX, 1998.
WJ	146	Cadoret, T. et al., "Fluid Distribution Effect on Sonic Attenuation in Partially Saturated Limestones," Geophysics, Vol. 63, No. 1, pp. 154-160, January-February 1998.
WJ	147	Tutuncu, A.N. et al., "Nonlinear Viscoelastic Behavior of Sedimentary Rocks, Part I: Effect of Frequency and Strain Amplitude," Geophysics, Vol. 63, No. 1, pp. 184-194, January-February 1998.
WJ	148	Tutuncu, A.N. et al., "Nonlinear Viscoelastic Behavior of Sedimentary Rocks, Part II: Hysteresis Effects and Influence of Type of Fluid on Elastic Moduli," Geophysics, Vol. 63, No. 1, pp. 195-203, January-February 1998.

Examiner Signature	<i>UJ Taylor</i>	Date Considered	6/1/2007
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Substitute for form 1449A/B/PTO				Complete If Known	
				Application Number	10/779,885
				Filing Date	February 17, 2004
				First Named Inventor	Hans Thomann
				Art Unit	2863
				Examiner Name	Victor J. Taylor
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NON PATENT LITERATURE DOCUMENTS			
u 149	Tsuru, T. and Kozawa, T., "Noise Characterization in SWD Survey," Society of Exploration Geophysicists of Japan, Tokyo, Butsuri-Tansa, Geophysical Exploration, Vol. 51, No. 1, pp. 45-54, February, 1998 (English translation of Abstract).		v
u 150	Verm, Richard et al., "Significance of Geopressure in Predicting Lithology," The Leading Edge, pp. 227-234, February 1998.		v
u 151	Macpherson, J.D. et al., "Application and Analysis of Simultaneous Near Bit and Surface Dynamics Measurements," IADC/SPE 39397, pp. 857-869, March 3-6, 1998.		v
u 152	Meehan, R.J. et al., "Drill Bit Seismic: A Drilling Optimization Tool," IADC/SPE 39312, pp. 177-190, March 3-6, 1998.		v
u 153	Shuttleworth, N.E. et al., "Revised Drilling Practices, VSS-MWD Tool Successfully Addresses Catastrophic Bit/Drillstring Vibrations," IADC/SPE 39314, pp. 925-933, March 3-6, 1998.		v
u 154	Greenberg, Jerry, "Managing Loss-of-Control in Deepwater Drilling," Reprinted from April 1998 edition of Offshore.		v
u 155	Paulsson, B.N.P. et al., "Advanced Borehole Seismology," OTC 8819, Offshore Technology Conference, Houston, Texas, pp. 489-498, May 4-7, 1998.		v
u 156	Meehan, R. et al., "Seismic Information Helps Predict Drilling Hazards, Choose Casing Point," Oil & Gas Journal, pp. 53-60, May 11, 1998.		v
u 157	Meehan, Richard et al., "Case Histories Show Real-Time Information Reduces Uncertainty," Oil & Gas Journal, pp. 54-59, May 18, 1998.		v
u 158	Lee, Stan et al., "Illuminating the Shadows: Tomography, Attenuation, and Pore-Pressure Processing in the South Caspian Sea," The Leading Edge, pp. 777-782, June 1998.		v
u 159	Esmersoy, C. et al., "Acoustic Imaging of Reservoir Structure From a Horizontal Well," The Leading Edge, pp. 940-946, July 1998.		v

Examiner Signature	<i>Victor J. Taylor</i>	Date Considered	6/1/2007
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Sheet	16	of	21	Attorney Docket Number	PM 2000.010A/4

NON PATENT LITERATURE DOCUMENTS					
u 166	Wilhelm, R. et al., "Seismic Pressure-Prediction Method Solves Problem Common in Deepwater Gulf of Mexico," Oil & Gas Journal, pp. 67-75, September 14, 1998.				✓
u 161	Barley, Brian, "Deepwater Problems Around The World," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, pp. 1-5, September 18, 1998.				✓
u 162	Dutta, N.C., "The Role of Seismic While Drilling Measurements for Shallow Water Flow Applications," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, p. 10, September 18, 1998.				✓
u 163	Hilterman, Fred, "Rock Property Framework For Comprehending Deep-Water Seismic Response," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, p. 8, September 18, 1998.				✓
u 164	Jones, Todd and Ratcliff, Davis, "Seismic Imaging Challenges in Deepwater Gulf of Mexico," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, p. 6, September 18, 1998.				✓
w 165	Kan, Tze-Kong et al., "3-D Geopressure Analysis in Deep Water GOM," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, pp. 8-9, September 18, 1998.				✓
u 166	Lee, Stan et al., "Deep Water Petroleum Exploration Using Seismic Pressure Methods," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, p. 9, September 18, 1998.				✓

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				Art Unit	2863
				Examiner Name	Victor J. Taylor
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NON PATENT LITERATURE DOCUMENTS					
W	167	Mallick, Subhashis et al., "Analysis of Bottom Simulating Reflector Data," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, pp. 9-10, September 18, 1998.		C	
W	168	Watkins, Joel S., "An Overview of the Stratigraphic History of the Deepwater Gulf of Mexico," Workshop: Deep Water Exploration & Production Geophysics, Abstracts, 1998 SEG International Exposition and Sixty-Eighth Annual Meeting, p. 7, September 18, 1998.		L	
W	169	Heisig, G. et al., "Downhole Diagnosis of Drilling Dynamics Data Provides New Level Drilling Process Control to Driller," SPE 49206, pp. 649-658, September 27-30, 1998.		C	
W	170	Eaton, Dr. Ben A., "Using Pre-Drill Seismic and LWD Data for Safe, Efficient Drilling," World Oil, pp. 51-57, December 1998.		C	
W	171	Jogi, P.N. et al., "Field Verification of Model Derived Natural Frequencies of a Drill String," ETCE99-6648, Energy Sources Technology Conference & Exhibition, pp. 1-8, 1999.		L	
W	172	Gas Research Institute, "Look-Ahead Prediction of Pore Pressure While Drilling: Assessment of Existing and Promising Technologies," February 1999.		C	
W	173	Geophysical Society of Houston Newsletter, Vol. 33, No. 6, pp. 1 and 3, February, 1999.		L	
W	174	McMillin, K, "Deepwater Generates Interest in Seismic-While-Drilling Technology," Offshore, pp. 44, 104, March 1999.		C	
W	175	Kenda, William P. et al., "Real-Time Geo-Pressure Analysis Reduces Drilling Costs," Oil & Gas Journal, pp. 52-59, March 1, 1999.		L	
W	176	Kan, Tze-Kong et al., "3-D Geopressure Analysis in the Deepwater Gulf of Mexico," The Leading Edge, pp. 502- 521, April 1999.		L	

Examiner Signature	<i>W. J. Taylor</i>	Date Considered	6/1/2004
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				Art Unit	2863
				Examiner Name	Victor J. Taylor
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NON PATENT LITERATURE DOCUMENTS					
176	Varsamis, G.L. et al., "A New MWD Full Wave Dual Mode Sonic Tool Design and Case Histories," SPWLA 40th Annual Logging Symposium, Oslo, May 30 – June 3, 1999, Paper F.				C
177	Lee, Stan et al., "Deepwater reservoir prediction using seismic and geomechanical methods," The Leading Edge, pp. 726-728, June 1999.				C
178	Project Summary, DEA-132, "Use of Converted Shear Wave Data to Identify Shallow Water Hazards Prior To Drilling," including New Proposal Summary, DEA-132, "Feasibility of Pre-drill Detection of Sands Likely to Exhibit Shallow Water Flows," Drilling Engineering Association, Houston, Texas, August 2, 1999.				C
179	Castagna, John P. et al., "Feasibility of Pre-Drill Detection of Sands Likely to Exhibit Shallow Water Flows Using Multi-Component Seismic Data: Proposal for a Joint Industry Project," presented at Marathon Oil, Houston, Texas, August 19, 1999.				C
180	Xu, Shiyu and Keys, Bob, "Study of the Coupled Effect of Pressure, Frequency and Fluid Content on P- and S-Wave Velocities," Technical Program: Expanded Abstracts, 69th Annual Meeting of the Society of Exploration Geophysicists, Houston, TX, October 31-November 5, 1999.				C
181	Davalath, Janardhan, "Subsea Separation Shortens Cycle for Deepwater, Long Offset Production," Offshore, pp. 66-70 & 112, December 1999.				C
182	Kuyken, C.W. and de Lange, Frank, "Pore Pressure Prediction Allows for Tighter Pressure Gradient Control," Offshore, pp. 64-65 & 112, December 1999.				C
183	Dvorkin, Jack, "Pore Pressure and Fluid Detection From Compressional- and Shear-Wave Data," Standford Rock Physics and Borehole Geophysics Report, Vol. 73, pp. 1-12, 2000.				C
184	Bradford, I.D.R. et al., "When Rock Mechanics Met Drilling: Effective Implementation of Real-Time Wellbore Stability Control," IADC/SPE 59121 Drilling Conference, New Orleans, Louisiana, pp. 1-13, February 23-25, 2000.				C
185					C
186					C

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				Art Unit	2863
				Examiner Name	Victor J. Taylor
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NON PATENT LITERATURE DOCUMENTS					
187	Sayers, C.M. et al., "Predrill Pore Pressure Prediction Using Seismic Data," IADC/SPE 59122 Drilling Conference, New Orleans, Louisiana, pp. 1-7, February 23-25, 2000.				✓
188	Dutta, N.C., "A Retrospective on the Wave Propagation in Porous Media – Seismic Links," Workshop on Seismic Signatures of Fluid Transport, Berlin, Germany, (Abstract), February 27-29, 2000.				✓
189	Rasolofosaon, P.N.J. and Zinszner, B.E., "Dynamic Poroelasticity in Anisotropic Rocks – Experimental Observations Versus Theoretical Predictions," Workshop on Seismic Signatures of Fluid Transport, Berlin, Germany, (Abstract), February 27-29, 2000.				✓
190	Wulff, A.-M. et al., "Seismic Monitoring of Fluid Fronts: An Experimental Study," Workshop on Seismic Signatures of Fluid Transport, Berlin, Germany, (Abstract), February 27-29, 2000.				✓
191	Xu, S., "Modeling Elastic Wave Propagation in Porous Media Using an Inclusion-Based Model," Workshop on Seismic Signatures of Fluid Transport, Berlin, Germany, (Abstract), February 27-29, 2000.				✓
192	Dutta, N.C., "Unconventional Use of Conventional Seismic: Extraction of Subsurface Pressure Information From Seismic Data," abstract of paper to be presented at Data Processing SIG Meeting, Sponsored by Geophysical Society of Houston, Houston, TX, April 19, 2000, <i>Geophysical Society of Houston Newsletter</i> , Vol. 34, No. 7, pp. 4-5, April 2000.				✓
193	Garotta, R. et al., "Defining Seismic Velocities and Density From P and S (or PS) Seismic Data," SEG/EAGE Summer Research Workshop, (Abstract), pp. 1884-1888, October 1-6, 2000.				✓
194	Duffaut, Kenneth et al., "Shear-Wave Elastic Impedance," <i>The Leading Edge</i> , Vol. 19, No. 11, pp. 1222-1229, November 2000.				✓

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NON PATENT LITERATURE DOCUMENTS			
U 195	Carcione, J.M., "Amplitude Variations With Offset of Pressure-Seal Reflections," Geophysics, Vol. 66, No. 1, pp. 283-293, January–February 2001.	C	
U 196	Predictions, Vol. 1, Issue 1, 1 st Quarter 2001, Published by Knowledge Systems, Inc., Stafford, TX.	V	
U 197	Predictions, Vol. 1, Issue 2, 2 nd Quarter 2001, Published by Knowledge Systems, Inc., Stafford, TX.	C	
U 198	Castagna, John P., "AVO Analysis," CSEG Recorder, pp. 29-34, June 2001.	V	
U 199	Predictions, Vol. 1, Issue 3, 3 rd Quarter 2001, published by Knowledge Systems, Inc., Stafford, TX.	C	
U 200	Underhill, W. et al., "Demonstrations of Real-Time Borehole Seismic From an LWD Tool," SPE 71365 Annual Technical Conference and Exhibition, New Orleans, Louisiana, pp. 1-5, September 30-October 3, 2001.	V	
U 201	Predictions, Vol. 1, Issue 4, 4 th Quarter 2001, published by Knowledge Systems, Inc., Stafford, TX.	V	
U 202	Bell, David W., "Velocity Estimation for Pore-Pressure Prediction," in A. R. Huffman and G. L. Bowers, eds., Pressure Regimes in Sedimentary Basins and Their Prediction: AAPG Memoir 76, pp. 177-215, 2002.	V	
U 203	Borge, Hans, "Modelling Generation and Dissipation of Overpressure in Sedimentary Basins: An Example From the Halten Terrace, Offshore Norway," Marine and Petroleum Geology 19, pp. 377-388, 2002.	C	
U 204	Huffman, Alan R., "The Future of Pressure Prediction Using Geophysical Methods," in A. R. Huffman and G. L. Bowers, eds., Pressure Regimes in Sedimentary Basins and Their Prediction: AAPG Memoir 76, pp. 217-233, 2002.	V	
U 205	Predictions, Vol. 1, Issue 1, 1 st Quarter 2002, published by Knowledge Systems, Inc., Stafford, TX.	V	

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				Examiner Name	Victor J. Taylor
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NON PATENT LITERATURE DOCUMENTS					
WJ 206	Predictions, Vol. 2, Issue 2, 2 nd Quarter 2002, published by Knowledge Systems, Inc., Stafford, TX.				✓
WJ 207	Mallick, S. and Dutta, N.C., "Shallow Water Flow Prediction Using Prestack Waveform Inversion of Conventional 3D Seismic Data and Rock Modeling," The Leading Edge, Vol. 21, No. 7, pp. 675-680, July 2002.				✓

~~All References Have Been Considered~~

*WJ/TOO LARGE DO NOT REFERENCES
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